To: Johnstone, Jeremy[Johnstone.Jeremy@epa.gov]; Lawrence, Kathryn[Lawrence.Kathryn@epa.gov]; Zito, Kelly[ZITO.KELLY@EPA.GOV]; Moore, Letitia[Moore.Letitia@epa.gov]; Keener, Bill[Keener.Bill@epa.gov]
Cc: Meer, Daniel[Meer.Daniel@epa.gov]; Basinger, David[Basinger.David@epa.gov]
From: Albright, David
Sent: Tue 1/5/2016 8:44:33 PM
Subject: RE: Question on story

It's not completely clear, but it seems likely that when the article refers to EPA ceding " regulatory control over methane storage in the state to California in 1983" and stating that EPA " gave regulatory authority to California" it is referring to a misunderstanding of EPA's granting of Class II UIC primacy to the State. EPA's granting of Class II primacy to CA in 1983 did not impact regulatory authority over underground natural gas (methane) storage wells in CA. My staff put together some information below which I hope is helpful in understanding our delegation of UIC primacy to CA and how natural gas storage wells relate. If anyone has questions about this information, please let me know. David

All California oil and gas wells (development and prospect wells), enhanced-recovery wells, water-disposal wells, service wells (i.e. structure, observation, temperature observation wells), core-holes, and gas-storage wells, onshore and offshore (within three nautical miles of the coastline), located on state and private lands, are permitted, drilled, operated, maintained, plugged and abandoned under requirements and procedures administered by the Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR).

In 1983 EPA delegated primary responsibility (primacy) to DOGGR for implementing the Class II oil and gas underground injection control (UIC) program of the federal Safe Drinking Water Act (SDWA). There are three types of Class II UIC wells – disposal, enhanced recovery and hydrocarbon storage; described as follows:

Disposal wells:
During oil and gas extraction, brines are also brought to the surface. Brines are separated from hydrocarbons at the surface and reinjected into the same or similar underground formations for disposal. Wastewater from hydraulic fracturing activities can also be injected into Class II wells. Class II disposal wells make up about 20 percent of the total number of Class II wells.

Enhanced recovery wells:
Fluids consisting of brine, freshwater, steam, polymers, or carbon dioxide are injected into oil-bearing formations to recover residual oil and in limited applications, natural gas. The injected fluids thin (decrease the viscosity) or displace small amounts of extractable oil and gas. Oil and gas is then available for recovery. In a typical configuration, a single injection well is surrounded by multiple production wells that bring oil and gas to the surface. The UIC program does not regulate wells that are solely used for production, however EPA does have authority to regulate hydraulic fracturing when diesel fuels are used in fluids or propping agents. Enhanced recovery wells are the most numerous type of Class II wells. They represent as much as 80 percent of the total number of Class II wells.

Hydrocarbon storage wells:
Liquid hydrocarbons may be injected into underground formations (such as salt caverns) where they are stored, such as part of the U.S. Strategic Petroleum Reserve. These wells are constructed and permitted for this specific use.

The leaking natural gas storage well at the Aliso Canyon facility is a former hydrocarbon production well which was converted over for natural gas storage. As such, the original production well permit was issued by DOGGR, as was the permit to convert the well from hydrocarbon production to natural gas storage. Natural gas storage wells, including the leaking well, are not Class II injection wells and therefore are not regulated under the UIC program. The federal UIC regulations at 144.1(g)(2)(iv) specifically exclude “injection wells used for injection of hydrocarbons which are of pipeline quality and are gases at standard

temperature and pressure for the purpose of storage." The wells at the Aliso Canyon facility fall within this category, and are therefore not subject to the Class II UIC regulations.

-----Original Message-----
From: Johnstone, Jeremy
Sent: Tuesday, January 05, 2016 9:08 AM
To: Lawrence, Kathryn <Lawrence.Kathryn@epa.gov>; Zito, Kelly <ZITO.KELLY@EPA.GOV>; Moore, Letitia <Moore.Letitia@epa.gov>; Keener, Bill <Keener.Bill@epa.gov>
Cc: Meer, Daniel <Meer.Daniel@epa.gov>; Basinger, David <Basinger.David@epa.gov>; Albright, David <Albright.David@epa.gov>
Subject: RE: Question on story

I'm guessing that the 1983 delegation refers to the UIC program. Copying David Albright here for confirmation.

Jeremy Johnstone
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-----Original Message-----
From: Lawrence, Kathryn
Sent: Tuesday, January 05, 2016 8:08 AM
To: Zito, Kelly <ZITO.KELLY@EPA.GOV>; Moore, Letitia <Moore.Letitia@epa.gov>; Keener, Bill <Keener.Bill@epa.gov>
Cc: Meer, Daniel <Meer.Daniel@epa.gov>; Johnstone, Jeremy <Johnstone.Jeremy@epa.gov>; Basinger, David <Basinger.David@epa.gov>
Subject: RE: Question on story

Hi Kelly

Are you referring to the patchwork of regulation description or the EPA ceding methane oversight to CA in 1983?

The 1983 reference does not register with me. Perhaps they are referring to the PHMSA delegation or some broader historical CAA delegation. However, I do not know the date for those and it seems unlikely that anything would be methane specific. But I do not know. I have copied Dan, Jeremy and Dave Basinger in case they have some insight.

Regardless, CAA 112r RMP and GDC regulations were not introduced until 1999

The story at the 1983 reg reference does not seem well cited or very accurate as a categorical statement.

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(415) 972-3039

-----Original Message-----
From: Zito, Kelly
Sent: Tuesday, January 05, 2016 7:32 AM
To: Moore, Letitia <Moore.Letitia@epa.gov>; Keener, Bill <Keener.Bill@epa.gov>; Lawrence, Kathryn <Lawrence.Kathryn@epa.gov>
Subject: Question on story

Hi folks - Please see this Al Jazeera story on Aliso. Is this characterization of oversight of methane correct? If not I'd like to try and clarify with reporter...
Thanks-
Kelly

http://america.aljazeera.com/articles/2016/1/5/california-gas-disaster-environmental-law.html

Sent from my iPhone